What is claimed is:

1. An objective lens for use in an optical pickup apparatus for conducting recording and/or reproducing information for an optical information recording medium, comprising:

a lens section shaped in an approximate circle and including a flange section; and

a connecting section integrally provided to the lens section;

wherein the following conditional formulas are satisfied:

$0.5 \leqq A \leqq 2.0$

$0.3A \leqq B \leqq 1.7A$

where A is a diameter of the lens section when the lens section is viewed from an direction of an optical axis, and B is a width of the connecting section when the connecting section is viewed from the direction of the optical axis.

2. The objective lens of claim 1, wherein the connecting section is extended from the lens section in a direction substantially perpendicular to the optical axis.

3. The objective lens of claim 2, wherein the following conditional formulas are satisfied:

$$0.3A \leqq B \leqq 0.8A$$

4. The objective lens of claim 1, further comprising a second connecting section integrally provided to the lens section, wherein the connecting section and the second connecting section are extended from the lens section in respective opposite directions each substantially perpendicular to the optical axis.

5. The objective lens of claim 4, wherein the size of the connecting section is different from that of the second connecting section.

6. The objective lens of claim 5, wherein the thickness of the connecting section in the direction of the optical axis is different from that of the second connecting section.

7. The objective lens of claim 4, wherein the length of the connecting section in the direction perpendicular to the

optical axis is different from that of the second connecting section.

8. The objective lens of claim 5, wherein the width of the connecting section when the connecting is viewed from the optical axis is different from that of the second connecting section.

9. The objective lens of claim 1, wherein the connecting is shaped in a square and the lens section is positioned at the center of the square.

10. The objective lens of claim 1, wherein the lens section is an aspheric lens section.

11. The objective lens of claim 1, wherein the lens section is provided with a diffractive structure.

12. The objective lens of claim 1, wherein the objective lens is made of a plastic.

13. The objective lens of claim 1, wherein the objective lens is made of a glass.

14. The objective lens of claim 1, wherein the objective lens is a molded lens with a resin.

15. The objective lens of claim 14, wherein the resin is filled through a single gate in a mold so that the molded lens has a single connecting section.

16. The objective lens of claim 15, wherein the connecting section is used as a resin flowing passage in a mold.

17. The objective lens of claim 14, wherein the resin is filled through plural gates in a mold so that the molded lens has plural connecting sections.

18. The objective lens of claim 14, wherein the resin is filled through two opposite gates in a mold so that the molded lens has two opposite connecting sections.

19. The objective lens of claim 14, wherein the molded lens has a square connecting section and the resin is filled through one end of the square connecting section.

20. The objective lens of claim 14, wherein the molded lens has a weld portion at a position other than an optical functional section.

21. The objective lens of claim 14, wherein the molded lens is produced by a method of injection molding.

22. The objective lens of claim 14, wherein the molded lens is produced by a method of compression molding.

23. A molded optical component, comprising:

a supporting shaft section having a first cross-sectional area;

a connecting section integrally provided to the supporting shaft section and extended in an axial direction of the supporting shaft section, and the connecting section having a second cross-sectional area smaller than the first cross sectional area; and

an optical functional section integrally provided to the connecting section.

24. The molded optical component of claim 23, wherein the sum weight of the supporting shaft section and the connecting

section is greater than the weight of the optical functional section.

25. The molded optical component of claim 23, wherein the sum weight of the supporting shaft section and the connecting section is 70% or more of the total weight of the molded optical component.

26. The molded optical component of claim 23, further comprising:

an information recording section provided on the supporting shaft section.

27. The molded optical component of claim 23, further comprising:

an information recording section provided on the connecting section.

28. The molded optical component of claim 23, wherein the sectional form of the supporting shaft section is shaped in almost a circle.

29. The molded optical component of claim 23, wherein the sectional form of the supporting shaft section is shaped in almost a trapezoid.

30. The molded optical component of claim 23, wherein the sectional form of the supporting shaft section is shaped in almost a semicircle.

31. The molded optical component of claim 30, wherein a parallel flat portion that is almost in parallel with a chord section of the semicircle is formed on a part of an arc section of the semicircle of the supporting section.

32. The molded optical component of claim 31, wherein a protruded portion that is protruded from the parallel flat portion and is shaped in almost a truncated square pyramid is formed on the parallel flat portion.

33. The molded optical component of claim 32, wherein the protruded portion has four side sections comprising a pair of longitudinal sides which face each other in the longitudinal direction of the supporting shaft section and a pair of lateral sides which face each other in the lateral direction,

and wherein an angle formed between the longitudinal side and the parallel flat section is made to be 45° or less.

34. The molded optical component of claim 30, wherein a normal line on a chord section of the semicircle almost agrees with an optical axis on an optical functional surface of the optical functional section.

35. The molded optical component of claim 23, wherein a protruded portion is formed on the supporting shaft section.

36. The molded optical component of claim 35, wherein the protruded portion is shaped in a truncated square pyramid.

37. The molded optical component of claim 35, wherein a corner section of the protruded portion is chamfered.

38. The molded optical component of claim 23, wherein a concave portion is provided on the supporting shaft section.

39. The molded optical component of claim 23, wherein a stress-concentration portion is formed on the connecting section.

40. The molded optical component of claim 39, wherein the stress-concentration portion is a V-shaped concave portion shaped in a direction perpendicular to an optical axis of an optical functional surface of the optical functional section.

41. The molded optical component of claim 39, wherein the stress-concentration portion is a V-shaped concave portion shaped in a direction almost equal to a direction of an optical axis of an optical functional surface of the optical functional section.

42. The molded optical component of claim 23, wherein an index section is provided on the connecting section on a basis of a distance from a center of the optical axis of the optical functional section.

43. The molded optical component of claim 42, wherein the index section is formed by cutting a mark in the connecting section.

44. The molded optical component of claim 42, wherein the index section is formed by protruding a mark from the connecting section.

45. The molded optical component of claim 42, wherein the index section is formed to be a straight line extended along the widthwise direction of the connecting section.

46. The molded optical component of claim 42, wherein the index section is formed to be a locus of a circle having a prescribed radius whose center is on the optical axis.

47. A method of handling a molded optical component, comprising steps of:

molding an optical component by a mold which is provided with a first resin flow path having a first cross sectional area, a second resin flow path which locates in continuation to the first resin flow path in a resin flow direction and has a second cross section area smaller than the first cross sectional area, and an optical functional section forming section which locates in continuation to the second resin flow path in a resin flow direction;

taking out the molded optical component from the mold, wherein the molded optical component comprises a supporting shaft section corresponding to the first resin flow path, a connecting section corresponding to the second resin flow path and an optical functional section corresponding to the optical functional section forming section; and

handling the molded optical component on a basis of the supporting shaft section.

48. The method of claim 47, further comprising:

cutting the supporting shaft section of the molded optical component.

49. The method of claim 48, wherein the supporting shaft section is cut out at a predetermined section.

50. The method of claim 49, wherein the supporting shaft section is cut out so as to have a predetermined length.

51. The method of claim 47, wherein the handling step is a step of positioning the molded optical component.

52. The method of claim 47, wherein the handling step is a step of holding the molded optical component.

53. The method of claim 47, wherein the handling step is a step of mounting the molded optical component.

54. The method of claim 47, wherein the handling step is a step of cutting the molded optical component.

55. The method of claim 47, wherein the handling step comprises a stem of assembling the molded optical component with another member and thereafter a step of cutting the connecting section.

56. The method of claim 55, wherein the another member is a cartridge for conveyance.

57. The method of claim 55, wherein the another member is an optical pickup unit.

58. The method of claim 47, wherein the handling step is a step of recording information on the supporting shaft section.

59. The method of claim 47, wherein the handling step is a step of recording information on the connecting section.

60. The method of claim 58, wherein the information is a reference number of a mold.

61. The method of claim 58, wherein the information is a reference number of a cavity.

62. The method of claim 58, wherein the step of recording information is conducted by marking.

63. The method of claim 58, wherein the step of recording information is conducted by printing.

64. The method of claim 58, wherein the step of recording information is conducted by pasting.

65. The method of claim 47, wherein the first resin flow path is adapted to provide a protruded portion or a concave portion on the supporting shaft section, the protruded

portion or the concave portion is used as a guide for positioning.

66. The method of claim 47, wherein the first resin flow path is adapted to provide a protruded portion or a concave portion on the supporting shaft section, the protruded portion or the concave portion is used as a guide for handling.

67. A mold for producing as optical component, comprising:

a first resin flow path having a first cross sectional area;

a second resin flow path which locates in continuation to the first resin flow path in a resin flow direction and has a second cross section area smaller than the first cross sectional area; and

an optical functional section forming section which locates in continuation to the second resin flow path in a resin flow direction;

wherein the molded optical component comprises a supporting shaft section corresponding to the first resin flow path, a connecting section corresponding to the second resin flow path and an optical functional section

corresponding to the optical functional section forming section.

68. The mold of claim 67, wherein the first resin flow path is shaped to have a portion to form a three-dimensional distinguishing mark on the supporting shaft section.

69. The mold of claim 67, wherein a flow direction of a resin through the first resin flow path and the second resin flow path is almost a straight line.

70. The mold of claim 67, wherein a flow direction of a resin on the first resin flow path conforms with that on the second resin flow path and is almost a straight line.

71. The mold of claim 67, wherein a flow direction of a resin on the first resin flow path is perpendicular to that on the second resin flow path.

72. The mold of claim 67, wherein the first resin flow path is a runner.

73. The mold of claim 67, wherein the first resin flow path is a gate.

74. The mold of claim 67, wherein the first resin flow path is shaped such that the cross sectional form of the supporting shaft section becomes almost a circle.

75. The mold of claim 67, wherein the first resin flow path is shaped such that the cross sectional form of the supporting shaft section becomes almost a trapezoid.

76. The mold of claim 67, wherein the first resin flow path is shaped such that the cross sectional form of the supporting shaft section becomes almost a semicircle.

77. The mold of claim 67, wherein the first resin flow path and the optical component forming section are shaped such that a normal line on a chord section of the semicircle almost agrees with an optical axis on an optical functional surface of the optical functional section.

78. The mold of claim 67, wherein the first resin flow path is shaped such that a protruded portion is formed on the supporting shaft section.

79. The mold of claim 67, wherein the first resin flow path is shaped such that a concave portion is formed on the supporting shaft section.

80. The mold of claim 67, wherein the second resin flow path is shaped such that a stress-concentration portion is formed on the connecting section.

81. A method of molding an optical component with a mold described in claim 67.

82. A method of molding an optical component with a mold having plural gates for a cavity corresponding to the optical component, comprising:

filling resin into the cavity thorough the plural gates, wherein a timing to start filling the resin is different for each of the plural gates.

83. An optical pickup apparatus, comprising:

the objective lens described in claim 1.

84. A method of assembling an optical pickup unit, comprising steps of:

mounting the optical functional section of the molded optical component described in claim 23 on an optical pickup apparatus while holding the supporting shaft section of the molded optical component; and

cutting the connecting section.

85. The method of claim 84, wherein in the cutting step, the connecting section is removed from the lens section so that the lens section becomes a circle-shaped lens section provided with no portion protruded from the circle-shaped lens section.

86. The method of claim 84, wherein the weight of the supporting shaft section is greater that that of the optical functional section.

87. The method of claim 84, wherein the volume of the supporting shaft section is greater that that of the optical functional section.

88. A method of assembling a package, comprising steps of:

mounting the optical functional section of the molded optical component described in claim 23 on a container while holding the supporting shaft section of the molded optical component; and

cutting the connecting section.

89. The method of claim 88, wherein the weight of the supporting shaft section is greater that that of the optical functional section.

90. The method of claim 88, wherein the volume of the supporting shaft section is greater that that of the optical functional section.